
A PRELIMINARY REPORT ON THE MOSQUITOES OF OHIO.*

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Since it was positively demonstrated that mosquitoes are the means of communicating yellow fever and malaria, many investigators have given attention to collecting, studying and describing these insects; hence, during the past five years rapid strides have been made in our knowledge concerning this interesting family.

In the catalog of North American Diptera, published by Mr. J. M. Aldrich, in 1905, thirty genera, containing one hundred and sixty-five species of Culicidae, are listed. Some of these species are tropical or sub-tropical forms which do not occur in northern latitudes.

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Several states have undertaken special investigations of the mosquito problem, and as a result Dr. Felt reports fifty species as occurring in New York and the adjoining states. Dr. J. B. Smith has found forty-two species in New Jersey, and Dr. Dupree has collected thirty-seven species in Louisiana.

Doubtless some of the species found in these states do not occur in Ohio, as they are either inhabitants of a warmer climate, or breed in salt or brackish water found along or near the sea coast.

It is the object of this paper to list the species that have been collected in this state, giving the localities where they were taken and the dates the captures were made, and it is hoped that sufficient interest may be aroused in the subject so that further investigations may be made of this important family.

Some collecting was undertaken by the writer at spare moments during the past summer, but this resulted in the collection of only a few species. The accompanying list represents the record of the material in the collection of the Entomological Department of the Ohio State University, which has been placed at my disposal through the courtesy of Profs. Osborn and Hine; and the assistance received from the latter has made it possible to prepare this report. Records of specimens are also included, which were collected by Mr. W. E. Evans, a student in Entomology at the Ohio State University, and credit is given in each case. I am also indebted to Dr. L. O. Howard, Entomologist to the United States Department of Agriculture, for having placed at my disposal the notes in his office on species received from Ohio, and to Mr. D. W. Coquillett for determining many of the species in the following list:

Anopheles maculipennis Meigen. Sandusky, (Cedar Point) July 8, 1903. (Hine).

Anopheles punctipennis Say. Columbus, September 8, 1898. July 13, 1898. October 12, 1900. March 9, 1903. (Hine).

Megarhinus portoricensis Roeder. Portsmouth, September 9, 1897. (Hine).

Toxorhynchites rutilus Coq. Cincinnati, August 27, 1902. (Dury).

Janthinosoma musica Say. Vinton, June 5-12, 1900. (Hine).

Psorophora ciliata Fabr. Medina, June 10, 1899. Sandusky (Cedar Point), August 7, 1902. Wauseon, September 5, 1903. Akron, June 16, (Hine).

Culex canadensis Theobald. Medina, July 19, 1898. Vinton, June 6-12, 1900. (Hine).

Culex cantans Meigen. Sugar Grove, May 25, 1901. Medina. June 16. Columbus, May 14. Sandusky (Cedar Point), July 23, 1903. London, June 23, 1904. (Hine).

Culex confinis Arrib. Sandusky (Cedar Point), July 27, 1905. (W. E. Evans).

Culex consobrinus Desvoidy. Columbus, October 23, 1905. (W. E. Evans)

Culex pipiens Linn. Columbus, March 16, 1898. October 12, 1900. (Hine). Cincinnati, September 13, 1905. (Burgess). Dayton, October 4, 1905. (E. C. Cotton). Columbus, November 20, 1905. (Burgess).

- Culex restuans** Theobald. Vinton, June 5, 1900. (Hine).
Culex sylvestris Theobald. Wauseon, September 5, 1903. (Hine). Sandusky (Cedar Point), July 27, 1905. (W. E. Evans). Hooker, September 5, 1905. (Cotton). Dayton, September 27, 1905. (Burgess).
Culex triseriatus Say. Medina, July 7, 1898. Vinton, June 5-12, 1900. (Hine). Cincinnati, August 2-8, 1905. (Dury).
Culex trivittatus Coq. Ft. Ancient, June 10-12, 1902. (Hine).
Taeniorhynchus perturbans Walk. Sandusky (Cedar Point), July 23, 1903. (Hine).
Aedes smithii Coq. Cleveland. (Reported by Howard.)

It will be observed that seventeen species have thus far been captured in Ohio. The most interesting among them, from an economic standpoint, are *Anopheles maculipennis*, which was taken at Sandusky, July 8th, 1903, and *A. punctipennis*, which has been taken at Columbus in March, July, September and October of various years, as they are the probable agents for the distribution of malaria.

Aside from the biting propensities of many species of mosquitoes, which cause annoyance and render some localities well nigh uninhabitable at certain seasons of the year, the knowledge that these two species are present in the state is very important. Although malaria is not considered a fatal disease, it caused sixty-eight deaths in the state during the year 1903, and doubtless this number represents only a small percentage of the persons who suffered from its enervating effects.

From the fact that one of the species listed, namely, *Culex confinis*, was first collected and described in South America, but was taken this summer at Sandusky, and further that the yellow fever mosquito (*Stegomyia fasciata*) was collected at Louisville, Ky., in October, 1903, by Dr. T. B. Berry, and has been found during the present year at Evansville, Ind., and Lexington, Ky., it is evident that some of the species of this family have a wide range of distribution.

It would appear possible for the latter species to be carried by boats from southern ports to almost any Ohio river town. Our knowledge of the distribution of this and other species is at present imperfect, and many points concerning the habits, life history and hibernation must be investigated if the problem is to be dealt with in an intelligent manner.

Neglect to obtain positive knowledge may at some future time result in loss of life, as well as seriously injure the business interest of localities involved; hence it would appear that no time should be lost in carefully and thoroughly investigating the problem.

Columbus, Ohio.